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ABSTRACT

This report discusses the outcomes of a project that investigated which districts in Mississippi identify gifted students with disabilities and the aspects of the referral to placement process for gifted education that made identification of twice-exceptional students possible. While it was initially thought that Mississippi's referral to placement process required for gifted education services might be a barrier to identification of students with disabilities, the opposite was found to be true. Results of the project indicate that Mississippi's polices pertaining to gifted education are not restrictive. Each district that identified students who were twice-exceptional did so according to state department guidelines. State regulations for gifted education programs outline minimal criteria for eligibility, however, local districts have the authority to make many decisions concerning the referral to placement process for students within their schools. Furthermore, identification of the disadvantaged student is provided for in several areas throughout the regulations. Lack of knowledge, from the state department level downward, appeared to the principle reason that students who are twice-exceptional are under-identified in the state of Mississippi. Teacher training on the characteristics of students who are twice-exceptional is recommended. (Contains 32 references.) (CR)

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Running head: IDENTIFICATION OF TWICE-EXCEPTIONAL STUDENTS

Practices in Identification of Twice-Exceptional Students in the State of Mississippi

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Practices in Identification of Twice-Exceptional Students in the State of Mississippi

While there is no accurate statistic for the incidence rate of gifted persons with specific disabilities, a reasonable and perhaps quite conservative estimate is that 2% (like that of the general population) of disabled children could be classified as "mentally gifted" (Whitmore & Maker, 1985, p. 12). Unfortunately, however, the gifted child with physical or sensory impairments is often unidentified. A greater knowledge concerning the twice-exceptional population and appropriate identification procedures should result in a more appropriate number of such students being identified as gifted.

Definitions

Definitions of Giftedness

Experts in the field of gifted education, the federal government, and state and local education agencies have all developed various definitions of giftedness. Experts in gifted education offer a definition which is rather broad in terms of types of giftedness and ways of identifying such giftedness. While the federal and state governments based their definition on current research at the time, there has been a lag in redefining giftedness with respect to more recent research. Cassidy and Hossler (1992) found that Renzulli's three-ring concept of giftedness has been adopted by only one state, Arkansas, and that definitions of giftedness offered by Sternberg and Gardner have received little attention from state and federal governments. "Despite the popularity of these newer theories in the field, none of them are reflected in any of the state definitions or in the federal definition" (Casssidy & Hossler, 1992, p. 53). As a result, there are distinct differences between definitions of giftedness created by experts and those created and used by state and local education agencies.

The more recent definitions of giftedness offered by experts in the field encompass much more than a high level of intelligence as measured by standardized tests. While Terman defined the gifted as the two percent who score highest on intelligence tests, Renzulli, Sternberg, and Gardner identify areas of giftedness or multiple intelligences (Colangelo & Davis, 1997). More important, especially for the twice-exceptional population, is that students do not have to exhibit strengths in all areas to be considered gifted. Maker, who is an expert concerning the gifted handicapped, offers what is perhaps the most general definition of giftedness and gifted persons. Maker (1992) defines giftedness as "the ability to solve the most complex problems in the most efficient, effective, or economical ways" and gifted persons as "capable of solving simple problems in the most efficient, effective or economical ways" (p. 13).

The federal government has, over time, revised its definition of giftedness and gifted children. However, the basic tenets have remained constant with few changes. Most federal definitions address giftedness in terms of children and youth who are, or potentially are, intellectually and/or creatively gifted and talented based on measured abilities and performance. One of the first federal definitions of giftedness was presented in the Education Amendments of 1969. That definition identified gifted and talented children as those who possessed outstanding intellectual ability or creative talent as measured with objective criteria and called for activities or services beyond those ordinarily provided in order to develop such gifts and talents (Cassidy & Hossler, 1992). The Marland Report, Education of the Gifted and Talented (1972), identified gifted and talented children as:

> those identified by professionally qualified persons who by virtue of outstanding abilities are capable of high performance. These are children who require differentiated educational programs and services beyond those normally provided by the regular school

program in order to realize their contribution to self and society.

Children capable of high performance include those with demonstrated achievement and or potential ability in any of the following areas, singly or in combination.

1. General intellectual ability
2. Specific academic aptitude
3. Creative or productive thinking
4. Leadership ability
5. Visual or performing arts
6. Psychomotor ability (p. 2)

The Marland definition was modified in 1978, deleting the psychomotor area and providing for the identification of children from preschool through the secondary level (Cassidy & Hossler, 1992). The Jacob K. Javits Gifted and Talented Students Education Act again modified the federal definition of giftedness; while elementary and secondary schools were mentioned in previous definitions, the newer definition made no reference to level of schooling. More recently, National Excellence: A Case for Developing America's Talent (Ross, 1993) replaced the Marland Report and redefined giftedness based on the federal definition found in the Javits Gifted and Talented Education Act. National Excellence opened the door wider for atypical populations of gifted students, stating that identification procedures should compare children to others of the same experience and environment and that "outstanding talents are present in children and youth from all cultural groups, across all economic strata, and in all areas of human endeavor" (Ross, 1993, p. 3).

The federal definition of giftedness exerts a strong influence on state definitions (Cassidy

& Hossler, 1992). Mississippi's 1985 definition of giftedness was composed of previous federal definitions. However, the 1989 modified definition simply identified gifted children and youth as those found to have a high degree of intellect and/or academic ability (Cassidy & Hossler, 1992). The most recent state definition defines gifted children and youth as those who are found, through the identification process, to have an exceptionally high degree of intelligence, academic ability, creativity and ability in visual arts, and creativity and ability in performing arts (music, drama, or dance) (Mississippi Department of Education, 1994).

Definitions of Disabilities

Because experts in the medical field can objectively identify and measure physical and sensory impairments, there is very little variance among definitions; therefore, such definitions are generally accepted nationwide and across states. However, there appears to be some degree of variation among state Departments of Education concerning which disabling conditions constitute a special education eligibility ruling because states may opt to give different titles to the federally defined categories of handicapping conditions. Special education categories may include physical handicaps, sensory impairments, mental retardation, autism, and learning disabilities among others.

Mississippi recognizes the following disability categories: autism, deaf-blindness, developmental delay, educational disability, emotional disability, hearing impairment, language/speech impairment, multiple disabilities, physical disabilities, specific learning disabilities, traumatic brain injury, and visual impairment. Physical and sensory impairments are defined below according to Mississippi Department of Education (1998) guidelines.

Deaf-Blindness: Deaf-blindness is a condition which involves a combination of visual impairments and hearing impairments and is often accompanied by other disabilities, such as

severe communication, physical, and/or developmental delays. Students who are deaf-blind may have sufficient sight to move about in their environment, recognize familiar people, see sign language, or read large print; they may have sufficient hearing to recognize familiar sounds, to understand some speech, or to develop speech.

Hearing Impairment: Hearing impaired students are identified as deaf or hard of hearing. Deaf students have a hearing loss so severe that language processing through hearing is impaired with or without amplification, therefore adversely affecting educational performance. Hard of hearing persons have sufficient hearing to allow auditory processing; however, their impairment adversely affects their educational performance.

Multiple Disabilities: A child with multiple disabilities has a combination of disabilities, not including deaf-blindness. While multiply disabled children exhibit a wide range of characteristics, similar traits include limited speech or communication and difficulty in mobility. Multiply disabled people may have seizures, cerebral palsy, sensory loss, hydrocephalus, and/or scoliosis.

Physical Disabilities: Physical disabilities include orthopedic or other health impairments. Students who are medically fragile or technologically dependent may also be included in this category. Such impairments include loss of one or more extremities, cerebral palsy, epilepsy, and diabetes, among many others. If the student's physical problems affect the student's mobility, coordination, stamina, communication, and/or learning ability to such an extent that educational objectives are difficult to accomplish, then special education services must be provided. Some students with physical disabilities may only require tutorial services, while others have no restrictions on what they can do and learn. According to Mississippi Department of Education (1998) guidelines, if a student makes normal progress in regular

education, regardless of the physical limitations, that student is not in need of special education services and therefore does not have a disability as defined by state regulations.

Visual Impairment: Visually impaired students may be blind or partially sighted. The Mississippi Department of Education (1998) classifies visually impaired students in four ways. Blind students are those who have so little sight that they must use braille as their reading medium. Legally blind students have visual acuity of 20/200 or less in the better eye after correction and/or peripheral field so contracted that the widest diameter subtends an arc no greater than 20 degrees. Partially sighted students have a significant loss of vision but are able to use regular or large print as their reading medium. Their visual acuity is generally between 20/70 and 20/200 in the better eye after correction. As with other conditions, visually impaired students are those whose impairment, even with correction, adversely affects their educational performance, thereby making them eligible for special education services.

Definitions of Twice-Exceptional

The definitions of twice-exceptional vary at least as much as those of giftedness. However, most definitions of twice-exceptional consist of a combination of the definitions of giftedness and the definitions of handicapped or the disabling condition. Pledgie (1982) described the twice-exceptional child as one who is "in the overlap between the gifted and handicapped categories" (p. 72). Corn (1986) cited Hegeman's definition: "gifted children who are also identified and eligible for services for the handicapped (1981, n.p.). According to Corn (1986) children must meet the independent criteria for both giftedness and handicapped. Johnsen and Corn (1989) based their definition, gifted with a sensory or physical handicap, on federal legislation. Such students must demonstrate potential for high performance based on the United States Office of Education guidelines and meet Public Law 94-142 criteria concerning

disabilities. Karnes, Shwedel, and Lewis (1983) defined twice-exceptional children without referring to a combination of definitions. They defined twice-exceptional children as those "whose full development is being hampered through physical, sensory, social-emotional, and/or learning deficits and who show evidence of being functionally or potentially gifted/talented" (p. 267). Potentially gifted students are defined as those who show evidence of superior ability but have not demonstrated such in a consistent, systematic fashion; functionally gifted students are those who have demonstrated ability significantly beyond their peers.

Identification Procedures

Identification procedures to determine giftedness and eligibility for special education services vary among states and districts within states. Federal guidelines exist; however, states and districts are allowed, to some extent, to develop their own identification procedures.

Mississippi Procedures

Identification Process for Gifted Students Mississippi's referral to placement process for gifted students consists of five steps: referral, local survey committee review, parental permission for testing, assessment, and assessment report. At the assessment phase, the Mississippi Department of Education provides for the identification of gifted students from atypical populations. Regulations for Gifted Education Programs (1994) states that districts must provide equal opportunity for the inclusion of "the environmentally and/or economically disadvantaged, culturally different, underachieving and disabled students, as well as students who exhibit classroom behavior such as extreme shyness, short attention spans, disruptiveness, continual questioning, or anxiety" (p. 3). While not required, hearing, vision, and general physical examinations are recommended. However, if a vision or hearing problem is suspected, a screening and possible follow-up examination must be conducted prior to the administration of

tests. Finally, when a student does not score at the 90th percentile or above on an individual intelligence test "but 1) the student's score is one standard deviation above the mean of the test; 2) district personnel have evidence through the data collected that the student exhibits major characteristics of giftedness; and 3) it is projected that the intelligence test did not reflect the student's possible intellectual potential because the student is disadvantaged" (p. 5), the following must be used to determine eligibility: norm-referenced individual test of cognitive abilities or achievement in reading comprehension, language arts (written expression), or math reasoning, or "a matrix for identification based on a statistical analysis of the district's assessment data and approved by the State Department of Education" (p. 6).

Referral to Placement Process for Special Education Mississippi's special education referral to placement process (Referral to Placement Process, 1993) is very similar to the process required for determining eligibility for gifted program services, requiring the same five steps: referral, local survey committee or regional screening team review, parental permission for testing, assessment, and assessment report. However, due to federal mandates and laws, the special education referral to placement process includes numerous safeguards to protect the rights of students who may be handicapped. Perhaps the greatest discrepancy between the referral to placement process for special education and that for gifted education is the intervention period prior to testing. While it is mandatory to conduct interventions for students with suspected disabilities before referral, students who are suspected of being gifted are not given "trial periods" in gifted programs without eligibility for such services.

Problems with Identification

Pendarvis and Grossi (1980) indicated that many children with disabilities are unidentified gifted children, and that there are gifted children with unrecognized disabilities. As

a result, there are students in both groups who are not appropriately served.

Lack of understanding

Pendarvis and Grossi (1980) claimed that the major obstacle to identifying and serving twice-exceptional students is a lack of understanding about the population. Twice-exceptional students are typically either referred for remedial instruction or perceived as average (Betts, 1988; St. Jean, 1996). Furthermore, students who are severely disabled are often assumed to be intellectually impaired as well (Whitmore, 1987).

Stereotypic expectations

Whitmore (1987) claimed that gifted children with disabilities are often underserved due to misconceptions concerning giftedness and stereotypic expectations of students with disabling conditions. When children with disabilities exhibit signs of superior mental abilities, the signs may be ignored by the disabled child, the family, and professionals who may focus on the disability and the stereotypic expectations associated with it (Whitmore & Maker, 1985). Whitmore and Maker (1985) contended that appropriate educational opportunities have been withheld from children with disabilities and that it is not unusual for individuals with disabilities to view individual professionals, institutions of learning or rehabilitation, and government agencies as being obstructive in relation to personal goals due to stereotypic expectations and a narrow view of the person.

Inadequate training of professionals

Inadequate training of professionals also leads to a lack of knowledge and therefore a lack of understanding. Administrators, psychologists, and psychometrists receive little instruction, if any, that specifically addresses twice-exceptional students. Educators of the gifted

rarely receive instruction concerning disabilities, just as special educators rarely study giftedness (Johnsen & Corn, 1989; Karnes, Shwedel, & Lewis, 1983; Whitmore, 1989a). Regular classroom teachers receive very little instruction concerning either population. As a result, more often than not a student's disability (especially a physical or sensory impairment) will be recognized long before his or her giftedness. Furthermore, when a student is referred for testing, those conducting the tests may not explore the possibility of giftedness or assess intellectual potential because they focus on the student's physical and sensory handicaps (Whitmore & Maker, 1985). When children are placed in programs to address their handicapping condition(s), special educators and regular classroom teachers are likely to teach such students as if they were intellectually delayed. These students are frequently not afforded opportunities which will stimulate and develop their superior intellectual abilities, and it is unlikely that behavioral indicators of giftedness will be elicited. School systems and teachers focus on the disabled child's weaknesses and ways of dealing with or compensating for the weakness; rarely are the strengths and talents of disabled students the focus of instruction (Betts, 1988; Johnsen & Corn, 1989; Karnes & Johnson, 1989; St. Jean, 1996; Whitmore, 1989a). As a result, such students are typically not considered for or are excluded from programs for gifted students (Whitmore, 1987; Whitmore & Maker, 1985).

Lack of policy/procedure(s)

While most state and local education agencies have established policies relating to students with disabilities and gifted students as separate entities, there is a need for policies specific to the identification of twice-exceptional students because "their education presents special problems which are not adequately resolved by addressing either the handicapped population or the gifted population separately" (Pendarvis & Grossi, 1980, p. 68). St. Jean

(1996) claimed that few education agencies have established policy/procedure(s) that pertain to the identification of gifted students with physical and/or sensory impairments; however, a series of studies led by Coleman which reviewed the impact of state policies on the identification of gifted students from special populations found that state policies were in place and were not major obstacles to identification (Coleman; 1995; Coleman & Gallagher, 1992; Coleman, Gallagher, & Foster, 1994). They found that the problem was not a lack of written policy, but rather a lack of communicating such policies beyond the state level to local districts for implementation.

Inappropriate identification procedures

Disabled students are generally not officially recognized as intellectually gifted for a number of reasons pertaining to inappropriate identification procedures. Coleman and Gallagher (1992) contended that when traditional methods of identification are used to determine giftedness, disabled students are often not found eligible.

Psychometrists or school psychologists who conduct assessments typically do not find evidence of giftedness when assessing a student to determine educational needs because standard measures and norms are often used (Whitmore & Maker, 1985). Additionally, many tests require modes of receiving input and responding which are difficult for students with physical and/or sensory disabilities (Johnsen and Corn, 1989). St. Jean (1996) pointed out that nonverbal or performance tests requiring hand manipulation may be impossible for students with limited mobility; furthermore, scores may be artificially lowered as a result of limited life experiences due to the impairment. Likewise, students with communicative handicaps may not be able to explain their thinking processes, respond to or ask questions, or display leadership abilities in typical ways. Research conducted by Maker (1977) indicated that while students with physical

disabilities have the same range of ability as students in the general population, in the presence of certain conditions (such as cerebral palsy, resulting in limited motor capabilities) the frequency patterns of IQs might be altered. Betts (1988) contended that a twice-exceptional student's scores on the WISC or WAIS may show a scatter of eleven or more points.

Johnsen and Corn (1989) asserted that "the predictive validity of adapted tests and the development of instruments specifically for certain populations were (and still are) lacking in numbers and quality" (p. 14). Furthermore, few validity studies have been conducted on tests which have been adapted for use in identifying twice-exceptional students (Coveny, in Johnsen & Corn, 1989).

Lack of funding

Lack of funding is often cited as a reason for the under-representation of disabled students in gifted programs (Coleman, 1995; Coleman & Gallagher, 1992; Johnsen & Corn, 1989; VanTassel-Baska, 1991; Whitmore, 1989a). Due to a lack of federal and/or state funding, many districts struggle to maintain gifted programs and literally can not afford the added expense of serving disabled students. There is also discussion as to who is responsible for expenses of identifying and serving the twice-exceptional student.

Lack of research

Very little information concerning twice-exceptional students is based on primary research. Published articles and books define and identify the population, address appropriate identification procedures, and discuss the cognitive and affective needs of the twice-exceptional student. However, an inadequate number of studies have been conducted in order to determine the most appropriate definitions, identification procedures, and programming options. Educators know very little concerning this population from either a research or practical perspective

(VanTassel-Baska; 1991; Whitmore, 1989b).

Within the past ten years, little more than ten articles were found addressing twice-exceptional students, specifically the gifted student with physical and/or sensory impairments. Most articles focus on atypical populations of gifted students, including twice-exceptional as one category among others, such as underachieving gifted, culturally diverse gifted, and economically disadvantaged gifted (Kirschenbaum, 1990; Coleman & Gallagher, 1992; Coleman, 1995). Furthermore, articles which focus solely on twice-exceptional students spend considerable time addressing the gifted student with a learning disability (Whitmore, 1989a; Whitmore, 1989b; VanTassel-Baska, 1991). Johnsen and Corn (1989) published an article which specifically addressed gifted children with physical and /or sensory disabilities. More specifically, Ingraham (1995) addressed gifted deaf-blind students, and Vernon and LaFalce-Landers (1993) and Yewchuk and Bibby (1988; 1989) addressed gifted students with hearing impairments.

Problems related to characteristics of twice-exceptional

Inherent characteristics of twice-exceptional students make identification difficult. Implications of the interaction between characteristics of gifted students and those of students with disabilities result in characteristics which are not necessarily typical of either. For example, compensatory skills are often learned or developed by gifted children with physical disabilities, enabling them to achieve success (Willard-Holt, 1993); however, the areas of strength combined with the disability may result in uneven performance (Virginia Department of Education, 1990). Furthermore, the gifted child may be able to mask their disability, or the child's disability may mask their gifts (Karnes, Shwedel, & Lewis, 1983; Whitmore, 1989a; Whitmore, 1987).

Achievement of disabled students may lag far behind that of age-mates due to a number

of factors. Physical and sensory impairments may result in limited experiences with the environment, thereby disrupting the usual pattern of development and possibly leading to limited opportunities to observe and imitate models (Hokanson and Jospe, in Willard-Holt, 1993). Additionally, children with physical and/or sensory impairments will have reduced sensorimotor and perceptual motor learning experiences. Therefore, such children may develop language and cognitive skills not based on manipulation, possibly resulting in difficulties in cognitive development and dealing with abstractions. Physical disabilities are likely to limit achievement until coping skills are learned (Whitmore, in Willard-Holt, 1993; Whitmore & Maker, 1985).

Recommendations for Improved Identification Procedures

Recommendations concerning the education of twice-exceptional students address topics ranging from advocacy (Betts, 1988; Coleman, 1995; Karnes, Shwedel, & Lewis, 1983) to continuing education, such as staff development (Coleman, 1995; Coleman & Gallagher, 1992; Karnes, Shwedel, & Lewis, 1983; Whitmore, 1989a). However, the majority of recommendations focus on improving the identification process.

Early Identification

Pledgie (1982) recommended that the effort to identify twice-exceptional students be concentrated in the early years when the first professionally trained individuals (i.e., teachers) come in contact with the child. At this point, identification and other programs are most extensive, intervention is more beneficial by virtue of being instituted early, and underachievement can be dealt with before the middle grades. Johnsen and Corn (1989), Karnes and Johnson (1987), and Whitmore (1989a) stressed the importance of promoting higher-level thinking skills at an early age, before attempting to identify the gifted/talented, because handicapping conditions often inhibit the emergence of gifts and talents. VanTassel-Baska

(1991) reported that early educational experiences for twice-exceptional students result in positive achievement patterns and self-concept development.

Increasing the Accuracy of the Diagnostic Process

Whitmore and Maker (1985) suggested increasing the accuracy of the diagnostic process by removing obstacles to students' formal identification as gifted and by developing systematic methods of increasing the probability that characteristics of intellectual giftedness will be elicited and recognized in disabled children. Pledgie (1982) suggested that the evaluation process include tests administered by professionals experienced in evaluating twice-exceptional students and judgements of specialized teachers, specialists, and experts who are qualified to evaluate the demonstrated or potential talents. Judgements of teachers, parents, and others familiar with the child's abilities are widely recommended (Betts, 1988; Pledgie, 1982; Whitmore, 1987). Johnsen and Corn (1989) contended that tests should be selected to identify the child's strengths as well as to accommodate their disabling condition. Furthermore, in determining factors which must be considered in the identification procedures for twice-exceptional students, Pledgie (1982) asserted that any items used in the screening process and in the evaluation must be multidimensional and that observations must be conducted over a period of time.

Improved Diagnostic Instruments

A related goal is to develop diagnostic instruments that will more accurately assess the specific educational need of the child. Whitmore and Maker (1985) and Pledgie (1982) stressed the necessity of developing improved assessment tools for the twice-exceptional population. The Stanford-Binet and WISC-R scales have been useful in establishing giftedness of disabled learners. Whitmore and Maker (1985), however, cautioned that norms used to interpret scores have been derived from population samples of nonhandicapped individuals; therefore, accurate

interpretation of the score of a disabled person remains problematic. They suggested that an adapted form of the Stanford-Binet may be more appropriate. Whitmore and Maker (1985) have also suggested the Structure of Intellect (SOI) test battery and the Kaufman Assessment Battery for Children (KABC). St. Jean (1996) recommended standardized tests such as the Columbia Maturity Test, Detroit Test of Learning Aptitude-2, and the Stanford-Binet, cautioning that adaptations and modifications may be necessary in order for students with disabilities to demonstrate their strengths. Maker (in Kirschenbaum, 1990), Pledgie (1982), and Whitmore (1987) stressed the importance of comparing students with peers with similar handicaps, asserting that it is the only way to assess a disabled student's abilities and performance.

Alternatives to Standardized Tests

While a number of commercial instruments are available and appropriate for assessing the abilities of twice-exceptional students, Pledgie (1982) cautioned that alternatives to standardized tests should be used if it is suspected that the student's disability might mask test performance. Experts in the field have suggested numerous alternatives. Coleman and Gallagaher (1992) recommended screening student files and using student profiles, case studies, and autobiographies. Betts (1988) recommended the use of interviews and performance checklists, and observational checklists are recommended by Coleman and Gallagher (1992) and St. Jean (1996).

Summary

Although disabling conditions are consistently defined, giftedness is not, contributing to a vagueness concerning what twice-exceptional is. Because the population of students considered twice-exceptional is not well defined, many problems exist in identifying and serving such students. In order to improve identification procedures and service provision, family, school

personnel, and other stakeholders involved with twice-exceptional students must have an increased knowledge and understanding of the population.

Purpose

Because considerable research has been published concerning gifted children with learning disabilities, this study will address students who are gifted and have sensory and/or physical disabilities. Therefore, for purposes of this study, twice-exceptional students will be defined as those who meet the criteria for intellectually gifted in the state of Mississippi and have an eligibility ruling in the area of deaf-blind, hearing impaired, multiple disabilities, physical disabilities, and/or visually impaired.

Twice-exceptional students have not been dependably identified for services; however, with appropriate identification procedures reliable identification is possible (Whitmore & Maker, 1985). The purpose of this study is to determine: 1) which districts in the state of Mississippi, if any, identify gifted students with physical and/or sensory impairments; and 2) which identification procedures in the state of Mississippi are most successful at identifying twice-exceptional students; or what aspects of the state identification procedures make identification of the twice-exceptional student impossible.

Method

Participants will be each public school district in the state of Mississippi that has a program for gifted students. The Mississippi School for Math and Science, the Mississippi School for the Deaf, and the Mississippi School for the Blind will also be included in this project. Only four school systems, Clay County, Coahoma County Agricultural High School, Montgomery County School District, and Tunica County will be excluded because these school systems do not have programs which serve gifted students.

Procedure

In a preliminary investigation the Offices of Special Education (Carolyn Black, Director) and Gifted Education (Conrad Castle, Consultant) at the Mississippi Department of Education were contacted to determine if any districts within the state are currently identifying gifted students with special education rulings in the area of deaf-blind, hearing impaired, multiple disabilities, physical disability, or visually impaired. It was found that there is no cross-referencing of eligibilities across departments. As a result, the Office of Special Education had no knowledge of which special education students might also be identified as gifted; likewise, the Office of Gifted Education had no knowledge of which gifted students might have identified disabilities.

Each district was contacted by telephone, e-mail, or postcard to request the following information:

1) Are there students in your district who have special education rulings of deaf-blind, HI (hearing impaired), multiple disabilities, PH (physical disability), or VI (visually

impaired) according to Mississippi Department of Education guidelines?

2) If yes, are any such students also identified as intellectually gifted according to Mississippi Department of Education guidelines?

The name and telephone number of the person completing the information as well as the name and address of the district was also requested. Due to time and monetary constraints, personal contact was not made with every district. Over 30 districts, all local districts and those who responded on the postcard that they did have a twice-exceptional student in their district, were contacted by phone. Additional information (e.g., the district's identification procedures) were requested from districts who have identified twice-exceptional students.

After determining which districts served gifted students with physical and/or sensory impairments, personal contact was made with gifted or special education contact persons in such districts. Due to the procedural safeguards and confidentiality issues involved with special education students, no identifying information concerning specific students was requested. As a result, limited information concerning identified students was available. The referral to placement procedures for gifted and/or special education were discussed in order to compare and contrast the district's procedures with those mandated by the Mississippi Department of Education.

Results

Of the 151 districts/schools surveyed, 113 (nearly 75%) responded to the questionnaire. Of the 113 districts/schools that responded, only 10 stated that twice-exceptional student(s) were identified. However, upon further questioning by phone, it was found that only 3 districts are serving twice-exceptional student(s) in a special education program and the gifted program. Of the remaining 7 districts who initially stated that there were twice-exceptional students in their

districts, 1 misunderstood the question and did not identify any twice-exceptional students, 1 stated that they have had such students in the past but serve none presently, 3 identified gifted students with other disabilities, such as speech/language disabilities, specific learning disabilities, and emotional disabilities, 1 stated that the student was "no longer ruled eligible for his other disabling condition because you can not be dual ruled" (personal communication, April, 1998), and 1 served a student who was visually impaired and gifted, but not ruled visually impaired according to state department guidelines for special education services (see Figure 1).

Discussion

The results of this survey indicate that the identification of twice-exceptional students in Mississippi's public schools is similar to that which has been reported in the literature. Five major factors, some leading to identification and others resulting in non-identification, were found to be present in school districts throughout Mississippi. Those factors are lack of knowledge, appropriate testing procedures, state policy, programming, and parental choice to refuse placement.

Lack of knowledge

Lack of knowledge is repeatedly cited in the literature as a primary reason for the non-identification of twice-exceptional students (Johnsen & Corn, 1989; Karnes, Shwedel, & Lewis, 1983; Pendarvis & Grossi, 1980; Whitmore, 1987; Whitmore, 1989a). Likewise, lack of knowledge seems to be a primary reason for the non-identification of twice-exceptional students in the state of Mississippi. Of the program directors who were reached by phone, some appeared to have no knowledge in the area of twice-exceptionality, and others seemed to have very limited knowledge. Of the 10 districts that initially responded that they *did* serve twice-exceptional students, only 6 actually do. Gifted students with physical and/or sensory disabilities are served

by 3 districts, and gifted students with other special education eligibility rulings are served by the other 3 districts. A program director in one district who claimed to serve twice-exceptional students misunderstood the question; after some discussion it was determined that the district actually served no twice-exceptional students. Other program directors referred to students who "seemed to be" disabled and/or gifted as twice-exceptional even if they did not have eligibility for both special education and gifted education services. Adding to such confusion is the lack of cross-referencing when the special education program and the gifted program are not directed by the same person. One district's special education coordinator referred questions to the gifted education coordinator. However, the gifted education coordinator referred the questions back to the special education coordinator. Much like the state department's organization, there seems to be little or no cross-referencing among offices when special education services and gifted education services are coordinated by separate offices and administrators. Terminology also seems to cause confusion in identifying twice-exceptional students. While the literature refers to gifted students with disabilities as twice-exceptional, several program directors referred to such students as those with "dual eligibility." While the term twice-exceptional suggests that the giftedness and the disability are interconnected, the term dual eligibility suggests that the disability and the giftedness could be and should be addressed as two separate areas. Conversations with program directors who referred to twice-exceptional students as those with dual eligibility support the claim made by Pendarvis and Grossi (1980) that most agencies relate to students with disabilities and gifted students as separate entities.

Two of the three districts in the state that do identify twice-exceptional students had program directors, psychometrists, and/or teachers who were obviously well informed concerning twice-exceptional students. Through conversations with the program director and/or

psychometrist/psychologist in each district, it was obvious that they were knowledgeable of the barriers to identification and appropriate referral and identification practices. Whether the remaining district's faculty/staff is well informed concerning the identification of twice-exceptional students is unknown. Due to procedural safeguards and confidentiality issues the program director of the district offered very little information. Questions asked which referred to student(s) identified as twice-exceptional and the referral and testing process were answered in very vague terms which provided no specific information.

Appropriate testing procedures

Appropriate testing procedures were present in one of the three districts that identified a twice-exceptional student. Instead of relying solely on objective tests outlined in the state department regulations (e.g., intelligence and achievement tests), this district made adaptation and modifications to the referral to placement process and the tests in order to meet the student's needs. The adaptations and modifications, which are allowed by state department guidelines, made it possible to accurately assess the student's ability. Adaptations included creating a state-approved checklist completed by the classroom teacher and using the Leiter International Performance Scale (not the test typically used by this district) for IQ. The psychometrist of this district stated that the Leiter, a test found to more accurately assess the intelligence and abilities of the disadvantaged, was specifically chosen because the student was considered to be at a disadvantage due to the disability. Additionally, the achievement test chosen was one that would accurately assess the student's strengths by relying on the intact sense(s) for providing answers. For example, a student with a hearing loss might be given a test which requires a great deal of pencil/paper tasks, while a student with a visual impairment might be given a tests which allows for more verbal interaction in providing answers.

Early identification was given as the reason that the other twice-exceptional student was identified, which supports the recommendation to identify twice-exceptional students in the early years when identification and other programs are most extensive and intervention is more beneficial (Pledgie, 1982). The identified student received only special education services at a young age; however, the program director stated that those involved with the student "knew that he was intellectually gifted." As a result, the student was referred in the second grade and ruled eligible for gifted education programming as well as special education services.

State policy

State policy also contributes to the confusion concerning the identification of twice-exceptional students. Program directors of three districts believed that according to state department guidelines a student could not be ruled physically and/or sensory disabled and gifted at the same time. Program directors of two districts dropped the special education ruling when the student was identified as gifted; one of the two stated that the student was "no longer ruled eligible for his other disabling condition because you can not be dual ruled . . . When he was found to be gifted the other one was dropped." One program director stated that the district placed students where they seemed to have the most need, implying that the student would be served in the gifted program *or* a special education program, but not in both simultaneously.

Policy problems appear to exist within the special education, not the gifted education, regulations. According to Mississippi Department of Education (1998) guidelines, the student's handicapping condition(s) must affect the student to the extent that educational objectives are difficult to accomplish; furthermore, if the student is able to make normal progress, regardless of the disability, the student does not qualify for special education services. However, because of compensatory skills characteristic of twice-exceptional students (Willard-Holt, 1993), such

students who appear to be making normal progress may actually be underachieving. Due to the vagueness of terms, many program directors seem to assume that students can not be ruled disabled and gifted simultaneously.

Programming also presents problems in meeting the needs of twice-exceptional students. Several districts, one which has a twice-exceptional student, do not offer gifted programs for high school students. However, just as the disabling condition will cause a student to continually require special educational services, so will the student's giftedness. For this reason, it is imperative that both services be offered throughout the student's schooling.

Parental choice to refuse placement in special education, which is not addressed in the literature, seems to be a factor in providing services to twice-exceptional students in Mississippi. A few districts responded that parents of gifted students refused to allow testing and/or placement in special education. One program director stated that there were gifted students in the district with fifteen point discrepancies on achievement tests, but those students were not referred or tested; furthermore, if such students had been tested, it was the opinion of this director that the parents would have refused placement. While parental refusal of placement is not directly cited in the literature, it is highly possible that parents realize the negative stereotypes and lack of expectations associated with special education (Betts, 1988; Johnsen & Corn, 1989; Karnes & Johnson; St. Jean, 1996; Whitmore, 1987; Whitmore, 1989a). This supports the claim made by Whitmore and Maker (1985) that some individuals view professionals, institutions, and agencies as being obstructive in relation to personal goals.

Conclusions

The purpose of this project was two-fold: 1) to determine which districts in Mississippi identify twice-exceptional students, and 2) to determine what aspect(s) of the referral to

placement process for gifted education in selected districts made identification possible. While it was initially thought that Mississippi's referral to placement process required for gifted education services might be a barrier to identification of students with disabilities, the opposite was found to be true.

Results of this project indicate that Mississippi's policies pertaining to gifted education are not restrictive. Each district that identified twice-exceptional students did so according to state department guidelines. Regulations for Gifted Education Programs (1994) outlines minimal criteria for eligibility; however, local districts have the authority to make many decisions concerning the referral to placement process for students within their schools. Furthermore, identification of the disadvantaged student is provided for in several areas throughout the regulations. However, it is crucial that written policies be communicated to administrators, faculty, and staff in local school districts. Additionally, if it is suspected that a student may be twice-exceptional, professionals responsible for recommendation and identification of students must be prepared to offer necessary accomodations and modifications. For this reason it is imporant for program directors and psychologists/psychometrists to know which tests are best suited to specific populations and which adaptations are allowed.

With the exception of lack of knowledge, factors cited in the literature as possible barriers to identification of twice-exceptional students do not appear to be problematic in Mississippi. There is not a lack of gifted policy and/or procedures in this state; furthermore, the state allows districts the leeway to develop identification procedures which are appropriate. Lack of money and resources can not be cited as a problem either. In comparing the 3 districts that identified twice-exceptional students to other districts in the state, there were no great differences; none of the 3 districts identified are large districts with funds or resources above

those available to other districts.

Lack of knowledge, from the state department level downward, appears to be the principal reason that twice-exceptional students are under-identified in the state of Mississippi. While there is a lack research, sufficient information concerning characteristics of twice-exceptional students is available. With a basic knowledge of characteristics of the twice-exceptional student, teachers will be better able to refer disabled students who are potentially gifted for testing. Once referred, it becomes necessary for psychologists/psychometrists to use tests and measurements appropriate for adequately assessing the student's abilties. Program directors must be educated and must take the initiative to educate their faculty and staff in the area of twice-exceptional.

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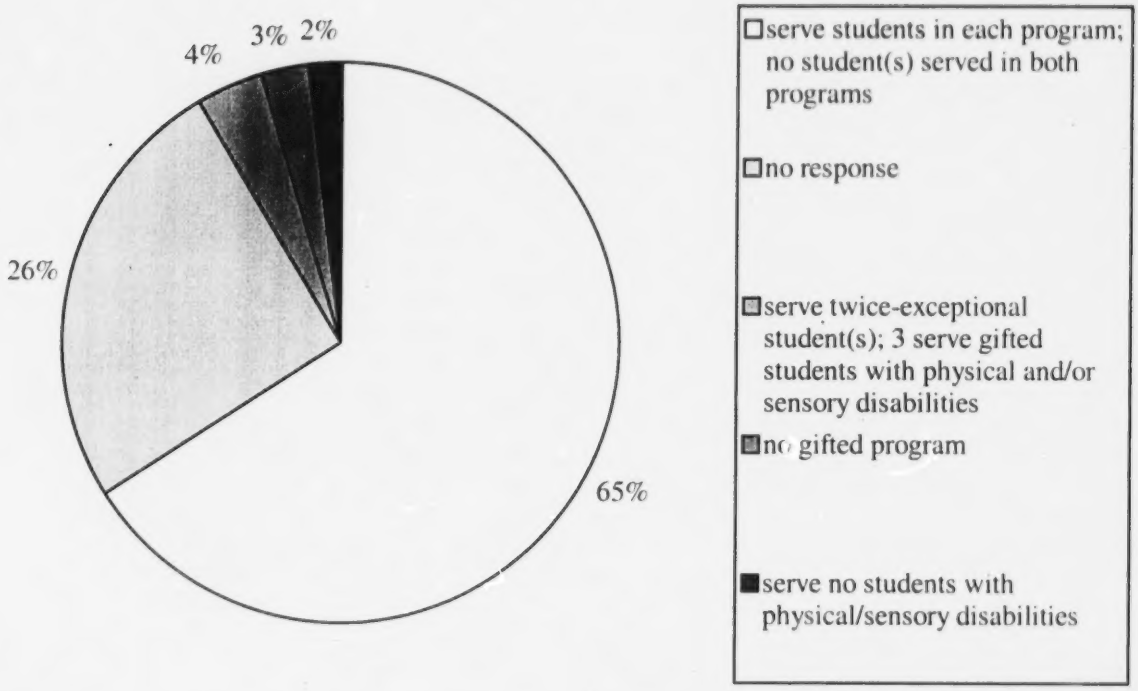

Figure 1. Distribution of special education and gifted education programs in the state of Mississippi.